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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/392,454	09/09/1999	GUY L. GRENIER	91436-193	1175

22463 7590 11/01/2002

SMART AND BIGGAR
438 UNIVERSITY AVENUE
SUITE 1500 BOX 111
TORONTO, ON M5G2K8
CANADA

EXAMINER

FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 11/01/2002

#4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/392,454

Applicant(s)

GRENIER ET AL.

Examiner

Derrick W. Ferris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-7,10-15,17,19-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,764,651 to Bullock et al. ("Bullock") in view of U.S. Patent No. 5,831,970 to Arao.

As to **claims 1, 13, 14, 15, 19, and 20**, Bullock discloses a bit error rate (BER) detection system for a SONET network. Specifically, Bullock discloses an adjustable window size (steps 44 and 46 shown in figure 7) to avoid taxing the controller when determining BER. Hence Bullock discloses monitoring an indication of signal degrades of a working line provided by a physical layer protocol (i.e., step a) [column 2, lines 33-37].

In general the reference is silent on how a response should be handled when a degraded signal is detected (e.g., what happens after the window length becomes zero as shown in step 50 of figure 7) [column 6, lines 14-17]. Arao discloses a transmission apparatus comprising a main monitor/control block used for monitoring the state of a line apparatus and producing a main signal used to notify a main line block as shown in figure 1 [column 1, lines 1-12]. Specifically, Arao provides a method of eliminating bottlenecks due to increased capacity using an alarm transmissions cell [column 7, lines

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64-67; column 8, lines 34-42]. Figure 3 of Arao shows the type of line information that could be monitored with emphasis on detecting a signal degrade (SD) [column 3, lines 1-4] using a control process (i.e., an ATM processor). Shown in figure 5, with reference to figure 4, the signal degrade information can be transported in an ATM cell (emphasis SD-R data transmitted in the payload portion) [column 10, lines 33-67; column 11, lines 1-28]. Hence disclosed in response to detecting a degraded signal as a result of monitoring, is generating an ATM cell indicative of the signal degrade using a broad but reasonable interpretation of the recited claim. Hence it would have been obvious to a skilled artisan to combine these references prior to applicant's invention since Arao provides the motivation of using an ATM cell payload in response to a signal degrade thus establishing a prima facie case of obviousness.

In general, Bullock discloses monitoring a SONET system for signal degrades. Specifically, Bullock discloses performing automatic protection switching for this SONET network. In general Arao also discloses monitoring a SONET system for signal degrades. Specifically Arao also discloses performing protection switching for the network based on the polling of physical level functions. Hence examiner notes a strong motivation to combine the subject matter as a whole for both references.

As to **claims 2 and 3**, both references disclose protection switching where it would have been obvious to a skilled artisan prior to applicant's invention to transmit traffic over a protected line after a signal degrade.

As to **claim 4**, both references mention SONET.

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As to **claims 5, 6 and 7**, Bullock discloses calculating a bit error rate from SONET path overhead. Included in this calculation is a parity check field [column 2, lines 54-67]. Also disclosed is determining if a threshold is reached (step 16 figure 5).

As to **claim 10**, Arao discloses using an ATM protecting switching channel.

As to **claims 11, 12 and 17**, examiner notes Arao discloses a coordination protocol using a broad but reasonable interpretation of a coordination protocol (that being a protocol used for monitoring a connection, detecting an error, and servicing a recovery as is well known in the art) for ATM protection switching.

3. **Claims 8, 9, 16, 18 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,764,651 to Bullock et al. ("Bullock") in view of U.S. Patent No. 5,831,970 to Arao and in further view of U.S. Patent No. 5,838,924 to Anderson et al. ("Anderson").

As to **claims 8, 9, 16, 18 and 21**, in addition to the reasoning provided in the previous rejection, examiner notes that Bullock and Arao teach notifying a line interface for protection switching in general. Anderson specifically discloses using an alarm indication signal (AIS) (emphasis broad) for protection switching for notifying a line interface. Anderson provides this additional motivation in column 6, lines 36-53. Thus using the references in combination, it would have been obvious to a skilled artisan to use the Anderson reference since Anderson discloses an alarm indication signal (AIS) that accomplishes the generic function as mentioned in the teachings of Bullock and Arao.

In general, Bullock discloses monitoring a SONET system for signal degrades. Specifically, Bullock discloses performing automatic protection switching for this

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SONET network. In general Arao also discloses monitoring a SONET system for signal degrades. Specifically Arao also discloses performing protection switching for the network based on the polling of physical level functions. Anderson also discloses monitoring a SONET system in general and more specifically performing ATM protection switching. Hence examiner notes a strong motivation to combine the subject matter as a whole for all references.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

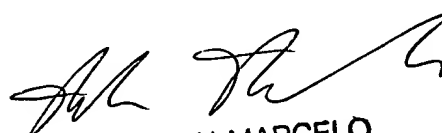
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-3900.

Derrick W. Ferris
Examiner
Art Unit 2663

DWF

October 30, 2002


MELVIN MARCELO
PRIMARY EXAMINER